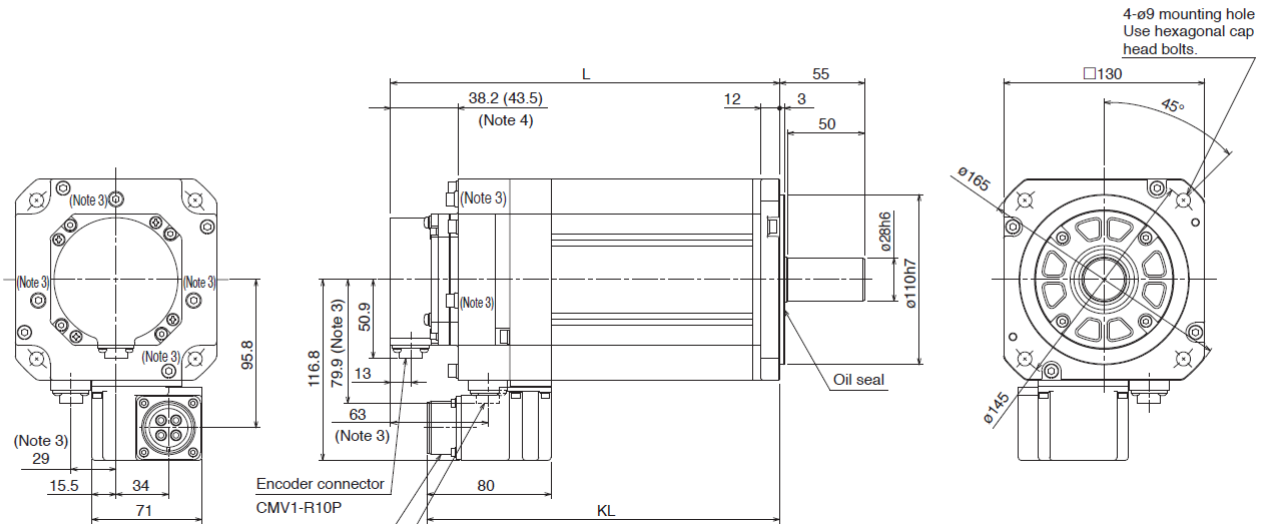




3500W

| Rotary servo motor model | | HG-JR | 53(B) | 73(B) | 103(B) | 153(B) | 203(B) | 353(B) | 503(B) | 703(B) | 903(B) |
|--|----------------------------|---|--|-----------------------|------------------------|-------------------------|-------------------------|-------------------------|--|-------------------------|--------------------|
| Compatible servo amplifier model | | MR-J4- MR-J4W_- | Refer to "Combinations of Rotary Servo Motor and Servo Amplifier" on pp. 2-4 and 2-5 in this catalog | | | | | | | | |
| Power supply capacity ^{*1} | | [kVA] | 1.0 | 1.3 | 1.7 | 2.5 | 3.5 | 5.5 | 7.5 | 10 | 13 |
| Continuous running duty | Rated output | [kW] | 0.5 | 0.75 | 1.0 | 1.5 | 2.0 | 3.3 <3.5> (Note 4) | 5.0 | 7.0 | 9.0 |
| | Rated torque (Note 5) | [N·m] | 1.6 | 2.4 | 3.2 | 4.8 | 6.4 | 10.5 <11.1> (Note 4) | 15.9 | 22.3 | 28.6 |
| Maximum torque | | [N·m] | 4.8 <6.4> (Note 5) | 7.2 <9.6> (Note 5) | 9.6 <12.7> (Note 5) | 14.3 <19.1> (Note 5) | 19.1 <25.5> (Note 5) | 32.0 <44.6> (Note 5) | 47.7 <63.7> (Note 5) | 66.8 <78.0> (Note 5) | 85.8 |
| Rated speed | | [r/min] | 3000 | | | | | | | | |
| Maximum speed | | [r/min] | 6000 | | | | | | 5000 | | |
| Permissible instantaneous speed | | [r/min] | 6900 | | | | | | | | |
| Power rate at continuous rated torque | Standard | [kW/s] | 16.7 | 27.3 | 38.2 | 60.2 | 82.4 | 83.5 | 133 | 115 | 147 |
| | With electromagnetic brake | [kW/s] | 12.5 | 22.0 | 32.2 | 53.1 | 74.8 | 71.6 | 119 | 93.9 | 125 |
| Rated current | | [A] | 3.0 | 5.6 | 5.6 | 11 | 11 | 17 <18> (Note 4) | 27 | 34 | 41 |
| Maximum current | | [A] | 9.0 <12> (Note 5) | 17 <23> (Note 5) | 17 <23> (Note 5) | 32 <43> (Note 5) | 32 <43> (Note 5) | 51 <71> (Note 5) | 81 <108> (Note 5) | 103 <134> (Note 5) | 134 |
| Regenerative braking frequency ^{*2} | MR-J4- | [times/min] | 67 <137> (Note 5) | 98 <511> (Note 5) | 76 <396> (Note 5) | 271 <271> (Note 5) | 206 <206> (Note 5) | 73 <98> (Note 5) | 68 <89> (Note 5, 9) | 56 (Note 9) | 204 (Note 5, 9) |
| | MR-J4W_- | [times/min] | 328 <328> (Note 5) | 237 | 186 | - | - | - | - | - | - |
| Moment of inertia J | Standard | [× 10 ⁻⁴ kg·m ²] | 1.52 | 2.09 | 2.65 | 3.79 | 4.92 | 13.2 | 19.0 | 43.3 | 55.8 |
| | With electromagnetic brake | [× 10 ⁻⁴ kg·m ²] | 2.02 | 2.59 | 3.15 | 4.29 | 5.42 | 15.4 | 21.2 | 52.9 | 65.4 |
| Recommended load to motor inertia ratio (Note 1) | | | 10 times or less | | | | | | | | |
| Speed/position detector | | | Absolute/incremental 22-bit encoder (revolution: 4194304 pulses/rev) | | | | | | | | |
| Oil seal | | | Installed | | | | | | | | |
| Thermistor | | | None | | | | | | | | |
| Insulation class | | | 155 (F) | | | | | | | | |
| Structure | | | Totally enclosed, natural cooling (IP rating: IP67) (Note 2) | | | | | | | | |
| Environment ^{*3} | Ambient temperature | | Operation: 0 °C to 40 °C (non-freezing), storage: -15 °C to 70 °C (non-freezing) | | | | | | | | |
| | Ambient humidity | | Operation: 10 %RH to 80 %RH (non-condensing), storage: 10 %RH to 90 %RH (non-condensing) | | | | | | | | |
| | Ambience | | Indoors (no direct sunlight); no corrosive gas, inflammable gas, oil mist or dust | | | | | | | | |
| | Altitude | | 2000 m or less above sea level (Note 7) | | | | | | | | |
| Vibration resistance ^{*4} | | | X: 24.5 m/s ² Y: 24.5 m/s ² | | | | | | X: 24.5 m/s ² Y: 29.4 m/s ² | | |
| Vibration rank | | | V10 ^{*6} | | | | | | | | |
| Compliance with global standards | | | Refer to "Compliance with Global Standards and Regulations" on p. 55 in this catalog. | | | | | | | | |
| Permissible load for the shaft ^{*5} | L | [mm] | 40 | 40 | 40 | 40 | 40 | 55 | 55 | 79 | 79 |
| | Radial | [N] | 323 | 323 | 323 | 323 | 323 | 980 | 980 | 2450 | 2450 |
| | Thrust | [N] | 284 | 284 | 284 | 284 | 284 | 490 | 490 | 980 | 980 |
| Mass | Standard | [kg] | 3.0 | 3.7 | 4.5 | 5.9 | 7.5 | 13 | 18 | 29 | 36 |
| | With electromagnetic brake | [kg] | 4.4 | 5.1 | 5.9 | 7.3 | 8.9 | 15 | 20 | 35 | 42 |

● **HG-JR353(B)** | HG-JR503(B)

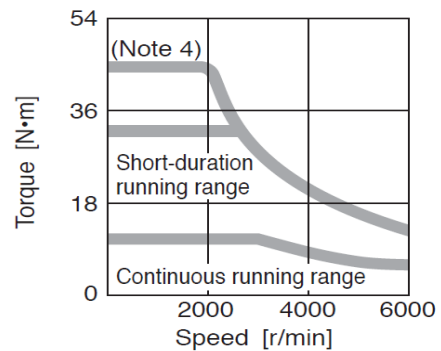


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| Model | Variable dimensions (Note 4) | |
|--------------------|------------------------------|-----|
| | L | KL |
| HG-JR353(B) | 213 (251.5) | 228 |
| HG-JR503(B) | 267 (305.5) | 282 |

HG-JR353(B) (Note 1, 5)



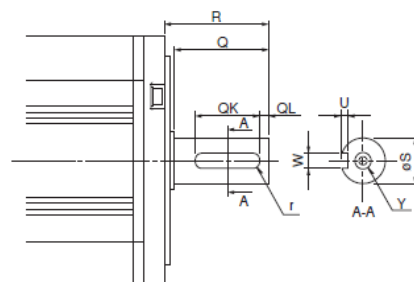
HG-JR 3000 r/min Series (200 V Class) Special Shaft End Specifications

Motors with the following specifications are also available.

Key shaft (without key) (Note 1, 2)

| Model | Variable dimensions | | | | | | | | |
|--|-----------------------------------|----|----|-----------------------------------|----|----|--------------------------------|-----|-----------------------|
| | S | R | Q | W | QK | QL | U | r | Y |
| HG-JR53(B)K, 73(B)K, 103(B)K, 153(B)K, 203(B)K | 16h6 | 40 | 30 | 5 ⁰ _{-0.030} | 25 | 2 | 3 ^{+0.1} ₀ | 2.5 | M4 screw Depth: 15 |
| HG-JR353(B)K, 503(B)K | 28h6 | 55 | 50 | 8 ⁰ _{-0.036} | 36 | 5 | 4 ^{+0.2} ₀ | 4 | M8 screw Depth: 20 |
| HG-JR703(B)K, 903(B)K | 35 ^{+0.010} ₀ | 79 | 75 | 10 ⁰ _{-0.036} | 55 | 5 | 5 ^{+0.2} ₀ | 5 | |

Notes: 1. Do not use servo motors with key shafts for applications that start/stop frequently because the key shaft may break and cause an accident.
 2. A key is not supplied with the servo motor. The key shall be installed by the user.



[Unit: mm]